Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method for compensating timing to start data writing in a magnetic disk device having one or more magnetic heads, each magnetic head having a write head and a read head with a head gap distance therebetween, the method comprising:

writing a predetermined unique pattern generated by a dedicated pattern generating circuit onto an area on a magnetic disk other than a user data area by the one or more magnetic heads;

measuring the head gap distance in each of the one or more magnetic heads by reading the predetermined unique pattern written onto the area; and

compensating the timing to start the data writing onto the user data area by control of a dedicated gap compensating circuit, wherein the dedicated gap compensating circuit changes the timing based on a time gap that corresponds to said measured head gap distance in each of the one or more magnetic heads.

2. (canceled)

3. (canceled)

4. (canceled)

5. (previously presented) In a magnetic disk device having a rotatable magnetic disk and a magnetic head, the magnetic head having separate write and read heads with a head gap distance therebetween, a method of establishing timing of write operations, the method comprising:

at a known first time interval after the read head detects a reference pattern on the magnetic disk, using the write head to write an identifiable predetermined pattern generated by a dedicated pattern generating circuit onto an area other than a user data area of the magnetic disk;

using the read head to detect the reference pattern and the predetermined pattern written onto the area;

determining a second time interval between detecting the reference pattern and detecting the predetermined pattern;

determining information relating to the head gap difference based at least in part on the first and second time intervals;

storing said information relating to the head gap difference for use in establishing the timing of subsequent write operations; and

compensating the timing to start the write operation onto the user data area by control of a dedicated gap compensating circuit, wherein the dedicated gap compensating circuit changes the timing based on the information relating to the head gap stored.

6. (canceled)

7. (canceled)

8. (original) The method of claim 5 wherein said determining the second time interval comprises:

establishing a read window having a duration substantially equal to the duration of the predetermined pattern;

reading the magnetic disk during the window interval while preventing reading during time intervals before and after the window interval;

determining whether the predetermined pattern is within the window; and

if not,

moving the window.

repeating reading and determining until the predetermined pattern is found in the window, and

using the window position at which the predetermined pattern is found in the window to determine the second time interval.

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (previously presented) A magnetic disk device having a magnetic head with a write head and a read head, the magnetic head being characterized by a head gap distance between the write head and the read head, the magnetic disk device comprising:

means for writing a predetermined unique pattern onto an area on a magnetic disk other than a user data area by the one or more magnetic heads;

measurement means for measuring the head gap distance by ~~writing and~~ reading the predetermined unique pattern written onto the area with the magnetic head;

memory means for storing a time gap that corresponds to the head gap distance measured by said measuring means; and

head gap compensation means for compensating timing to start writing onto the user data area and changing the timing based on said time gap that is read out from said memory means.

15. (previously presented) A magnetic disk device comprising:

a magnetic disk;

a write head for writing data on said magnetic disk;

a write circuit configured to modulate the data and supply a write current to said write head;

a read head for reading the data from said magnetic disk;

a read circuit configured to amplify and demodulate a read signal provided by said read head;

a gate generating circuit configured to generate a read gate and a write gate that determine timing to write and read the data;

a pattern generating circuit configured to generate a unique pattern to be written onto an area on a magnetic disk other than a user data area by the write head, the unique pattern being used for measuring a head gap distance;

a gap measuring circuit configured to measure said head gap distance based on a signal acquired by reading said unique pattern written onto the area;

a memory for storing a time gap TG corresponding to said head gap distance, so measured; and

a gap compensating circuit, coupled to said memory, being configured to compensate the timing of writing data onto the user data area, wherein the gap compensating circuit changes the timing based on said time gap TG stored in said memory.

16. (previously presented) A method for compensating timing to start data writing in a magnetic disk device according to claim 1, wherein preamble data is written before the predetermined unique pattern, and data which is different from the predetermined unique pattern is written after the predetermined unique pattern.

17. (previously presented) A method according to claim 5, wherein preamble data is written before the predetermined unique pattern, and data which is different from the predetermined unique pattern is written after the predetermined unique pattern.

18. (previously presented) A magnetic disk device according to claim 14, wherein preamble data is written before the predetermined unique pattern, and data which is different from the predetermined unique pattern is written after the predetermined unique pattern.

19. (previously presented) A magnetic disk device according to claim 15, wherein preamble data is written before the predetermined unique pattern, and data which is different from the predetermined unique pattern is written after the predetermined unique pattern.